Transport Infrastructure Development in the Republic of Armenia

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Ministry of Transport and Communication of Armenia
Transport Sector Strategy

In the year of 2008 by the grant of Asian Development Bank (ADB) was drafted Transport Sector Development Strategy for 2009-2019, covering all modes of transport.

Long Term Vision:
- environmentally responsible transport
- mobility for all
- promoting national, regional and local development.

The Goals:
- Facilitate international trade, economic development, regional balance and job creation
- Develop, manage and efficiently utilize assets and resources
- Improve services and modal integration
Objectives:

1. Upgrade International and Interstate road corridors, in phases.
2. Rehabilitate and develop infrastructure to an economically appropriate standard
3. Institute sustainable maintenance, adequately resourced and effectively managed
4. Manage demand and balance modal supply to reduce congestion
5. Enhance governance and regulation of service provision and operation
6. Improve institutional structure and redefine management responsibilities
7. Develop a medium/long term planning and financial management capability
8. Improve the application of logistics and IT
9. Improve safety and enhance environmental protection
10. Mobilize international support for the objectives
Transport Infrastructures

Roads

- Interstate – 1686 km
- Republican – 4056 km
- Local/Rural – 1962 km
## Road Sector
### Indicative Investment Plan (2010-2017)

<table>
<thead>
<tr>
<th>Road and Section</th>
<th>Length (km)</th>
<th>Cost ($ million)</th>
<th>Financing</th>
<th>Status</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. North-South Corridor M-1</td>
<td>164</td>
<td>397</td>
<td>ADB</td>
<td>FS/Loan</td>
<td>2016</td>
</tr>
<tr>
<td>2. North-South Corridor M-2</td>
<td>381</td>
<td>388</td>
<td>ADB/WB</td>
<td>FS</td>
<td>2016</td>
</tr>
<tr>
<td>3. M-3: Georgia-Vanadzor-Turkey</td>
<td>22</td>
<td>50</td>
<td>WB</td>
<td>Loan</td>
<td>2013</td>
</tr>
<tr>
<td>5. Rural Roads Program</td>
<td>840</td>
<td>301</td>
<td></td>
<td>In progress/Loan 2009/Review</td>
<td>2015</td>
</tr>
<tr>
<td><strong>Total Investments plus Government Taxes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,433</strong></td>
</tr>
<tr>
<td>1. Implementation of Road Sector Plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Implementation of Road Safety Strategy</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Investment Components</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>20</strong></td>
</tr>
<tr>
<td><strong>GRAND TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,453</strong></td>
</tr>
</tbody>
</table>
Main Transport Road Corridors
- North – South

M-1 Yerevan – Gyumri – Georgia border – 164 km

M-2 Yerevan – Yeraskh – Goris – Meghri – Iran border – 381 km

Total: 545 km

- West – East

Turkey border – Gyumri – Vanadzor – Dilijan – Ijevan – Azerbaijan border - 171 km
WEST - EAST CORRIDOR MAP

Roads

Kars/Turkey border – Gyumri – Vanadzor - Ijevan/Gazakh Az. border
North - South Road Corridor
Proposed $500 million ADB Multi-Tranche Financing Facility

Upgrading of North-South corridor:
Meghri (Iran border) – Kapan – Yerevan – Gyumri – Bavra (Georgia border)

Tranche 1: 70 million USD
Rehabilitation and Reconstruction of Existing Yerevan - Ashtarak 4 lane first category road – 18 km
Yerevan – Ararat – 45 km

Tranche 2:
Gyumri – Bavra/Border of Georgia
Sisian – Kapan alternative to the existing road

Tranche 3:
Upgrading road category along the corridor
Transport Strategy 2009-2019

Improvement of North-South Corridor and Other Interstate Roads

- RD-2 Yerevan Western Bypass (20 km) Missing Links (ADB)

- RD-8 Gyumri Eastern Bypass (20 km) (ADB)

- M2/M3/M6: Rehabilitation (World Bank)
Railway Corridors

- **North – South Corridor**
  
  400 km – Gagarin – Meghri/Iranian border section
  
  Georgian border – Vanadzor – Dilijan – Gagarin – Meghri/Iranian border

- **West – East Corridor**
  
  Turkey border – Gyumri – Vanadzor – Dilijan – Ijevan – Azerbaijan border – 180 km
Railway Infrastructures

Railroad Projects

- New railroad Gagarin – Meghri/Iran border (approximately 400 km)

- Rehabilitation Dilijan - Ijevan/Azerbaijan border

- Construction of new railroad Dilijan – Vanadzor, which is missing (up to 40 km)

- Rehabilitation of “Railroad Gauge change” terminal in Gyumri
RAILWAY CORRIDORS

North - South Corridor

400 km – Gagarin – Meghri/Iranian border section

Georgian border – Vanadzor – Dilijan – Gagarin – Meghri / Iranian border
RAILWAY CORRIDORS

East - West Corridor

41 km Missing Rail Link: Vanadzor – Dilijan

Kars (TUR) – Gyumri – Vanadzor – Dilijan – Ijevan – Gandza (AZE) – Alat (AZE) – Baku (AZE)
Armenia - Turkey Protocol

Announced on 31 August, 2009 provides timetable for normalization of relations and for opening of border.

Impacts:

- Lower transport costs
- Much shorter East-West transit through Armenia
- Reporting of Kars – Gyumri rail link
THANK YOU
South Eastern Axis: Linking Europe with South Caucasus
South Eastern Axis: Railroad
Europe – Istanbul (TUR) – Kars (TUR) – Gyumri (ARM) – Nakhijevan (AZE) – Meghri (ARM) – Baku (AZE)
# Railroad Priority

GAGARIN – KAMO – MARTUNI – JERMUK – KAPAN - MEGHRI – MERAND (IRAN)

## Railroad’s Basic Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Length</td>
<td>469.6 km</td>
</tr>
<tr>
<td>Road Category</td>
<td>III one line</td>
</tr>
<tr>
<td>Steering leaning</td>
<td>28 %</td>
</tr>
<tr>
<td>Length maximum leaning</td>
<td>30 %</td>
</tr>
<tr>
<td>Bridges and over-bridges</td>
<td>54</td>
</tr>
<tr>
<td>Tunnels</td>
<td>7/23.95 each/km</td>
</tr>
<tr>
<td>Stations</td>
<td>9</td>
</tr>
<tr>
<td>Substations</td>
<td>30</td>
</tr>
<tr>
<td>Average speed of movement</td>
<td>40 km/h</td>
</tr>
<tr>
<td>Average altitude above sea</td>
<td>1760 m</td>
</tr>
<tr>
<td>Approximate construction cost</td>
<td>1.5-2 billion USD</td>
</tr>
</tbody>
</table>
Dilijan – Aljevan / Kazakh – border of AZE needs to be rehabilitated
48.3 km (landslides)

Constructed in 1986
Not operating since 1993

Vanadzor – Dilijan (Fioletovo) – Dilizhan
47 km

should be newly constructed, which will shorten the way in case of opening the border with Turkey